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## SPILT MILK.

A good deal of plain common-sense is to be found in some of the homeliest of our proverbs; while others, that are far more elegantly worded, often fall very far short of the truth. They may sound well; but strip off the tinsel of the well-turned expressions, and very little of the real ore will be discovered lurking underneath. 'There's no good crying over spilt milk;' and yet, though the futility of the proceeding is universally believed in theory, how very seldom does the practice coincide with the belief! We spill our pails of milk over and over again, and, what is worse, we waste precious time in shedding idle tears over our loss! How wise were these old Egyptians, if, as runs the legend, they magnified the indulgence of regret into one of the deadly sins, a feeling to be fought against and sternly repressed.

As this century rushes to its close, our lives are becoming more and more crowded; fresh interests, wider fields of knowledge, new questions have arisen in this our age to occupy our minds and thoughts. Life's little day is all too short for the multifarious daily toils, joys, sorrows, matters of business, affairs of our own, and others, and minor details which fill it to overflowing; and it is certainly too brief to allow us to sit with folded hands and tearful eyes brooding over the grave of bitter memories and a dead past. As a great writer has so truly said: 'Life is so far like the chase that it admits of but little leisure for hesitation, none whatever for regret. How should we ever get to the finish, if we must needs stop to pick up the fallen or to mourn for the dead?'

Our dear ones are taken from us; the King of Terrors lays his icy finger on their brow, and with them seems to vanish also the sunshine from our lives. Earth's beauty and the countless charms of Nature only mock our bitter suffering, the flowers lose their fragrance, the zest of living goes from us, and grief casts its gloomy shadow on our path. In spite of all this, however, it

will bring us no alleviation to encourage this state of things to continue; we must make an effort—a violent one, if needs be—to emerge from the darkness which at present threatens to obscure our whole horizon, for we cannot spend the rest of our lives in the gray twilight of a gentle sorrow. All the ardent, hopeless longing which fills our breasts, all the tears that were ever shed, will not bring back to us those we have loved and lost; and all that we *can* do is to shoulder manfully the burden laid upon us, rise up and face our trouble, and strive to win resignation, if not forgetfulness, by taking up and doing bravely our appointed work in the world.

It is not, however, only the loss of our nearest and dearest by death which brings into our lives the element of regret. There are the countless misunderstandings, the thoughts and words of bitterness and anger, which are always intensified in proportion to our love for the offender. We say or do something which no amount of after-*repentance* is capable of undoing, and it may be that a few words can have the power to change the whole current of our existence, and leave behind them a poisoned sting for which there is no antidote. Most disastrous and unforeseen effects sometimes result from thus yielding to the mistaken impulse of the moment, and then—in sackcloth and ashes we regret those hasty words or rash actions which may have ruined two lives, and destroyed not only our own chances of happiness but another's as well. It is in these cases that the practical advice of the friendly proverb should force itself into the midst of our useless self-reproaches and sad reflections.

The milk is spilt, true enough, and by reason of our own carelessness, if nothing worse, but what good will it do us to cry over it? On the contrary, let its remembrance prove as a beacon in our path to warn us against similar dangers, so that the next time we see the frail barque of our Happiness about to dash itself to pieces against the rocks, we may be able to bring it

to a place of safety by the aid of the anchor of past experience and common-sense. There was that investment you thought so promising and secure, but which your friends warned you was unreliable and risky. The people who listen to and act upon the advice they ask for are in a small minority; so you walked unheeding into the pitfall prepared for you, and—the result fully justified your counsellor's warnings. *That* pail was overturned, and your money gone beyond recall, but tears will not help you in this case either!

Perhaps some of the most useless hours ever spent by man or woman are those which are wasted in vain regrets for that which 'might have been.' These are words to conjure with, and imagination is too apt to invest that particular form of happiness which has evaded our eager grasp with a radiancy and a glory which probably it would not in reality have possessed. The deprivation of delights that have been tasted can by some natures be borne to a certain extent with equanimity; but man, or woman either, can seldom think with calm philosophical resignation of joys which might have been their portion had affairs turned out or been arranged differently. There is scope there for all the idealisation of which our minds are capable; the picture of what 'might have been' shines before our enraptured gaze, surrounded by a rose-coloured halo; and in proportion as we exaggerate to ourselves its charms and attractions, we are filled with disgust at our present mode of life.

There are times in the lives of almost every one when the beaten pathway diverges into two or more different turnings, and the question arises as to which shall be traversed. There is a pause in the daily routine of existence; a crisis of some kind has been arrived at, and for good or ill our decision must be made. Shall we turn down this shady lane, filled with the scent of violets, and wander by the side of the limpid brook, babbling sweet music between mossy banks? Or shall we choose by preference the dusty, sun-scorched road, dry and monotonous, which stretches its interminable length before us? Or, again, shall we cross those low-lying meadows to the right, and having climbed the numerous stiles and obstacles which bar our path, seek the inviting coolness of the green woods beyond? Whichever course we decide on, we must abide by our decision; and then, it usually follows that our errant fancy leads us into wild imaginings as to what would have been our lot had our steps led us in another direction. It is the unattainable, the flower which grows just beyond our reach, the happiness which is not ours, and never can be, which possesses such a charm for the majority of human beings. Our choice has been made, however, and it is too late now for idle regrets; so, if we are wise, we will try to console ourselves like the fox in the fable, and say that perhaps, after all, the other paths might not have proved so charming as we imagined them, and that 'all is for the best, in the best of all possible worlds!'

In some cases the pail of milk takes the form of failure, either in one particular undertaking upon whose success we have set our hearts, or in a series of petty disappointments which sap

our vital energy, and threaten eventually to overshadow our lives. What can be more bitter than the conviction of failure to a man whose ambition has soared high as the eagle, and descended with the rapidity of a rocket? The dreams of his boyhood, the hard work and never-tiring activity of his later years, his eager efforts to attain the object of his hopes, be it the laurel wreath, the golden crown, a scheme of scientific importance, or what you will—all is wasted, and he feels inclined to say with Balzac, when the world went so awry with him, and even his brilliant genius availed him nothing: '*Hélas, c'est une vie manquée!*'

It has sometimes happened, though, that failure has led to after-success, and perseverance and dogged persistency have reached the winning-post in triumph, while faint-heartedness and despondency have fallen out of the race.

Besides the causes for regret which we have already mentioned, there are the constantly recurring pin-pricks of daily life, which are sometimes harder to bear patiently than a great sorrow demanding an heroic effort. We are always upsetting our milk-pails, and then sitting down to cry, instead of making the best of it. We make mistakes—who is there that does not? We lose opportunities either for our own advancement or for doing good to our friends. We make a fiasco of our business affairs; we enter into arrangements against the advice of others, and which we afterwards repent; we form undesirable intimacies, from which we find it difficult to retire gracefully; we are extravagant, and run into debt—in fact, the number of ways in which we spill our milk is legion; but instead of mending matters, it is only adding to our folly to be for ever bemoaning it. If our regret makes us wiser for the future, well and good; but even then it must not be indulged in to a great extent; and we fear in most cases our tears have not even that excuse, for when they are dried, we usually set to work, repeating the spilling and crying process all over again!

## BLOOD ROYAL.\*

### CHAPTER XIV.—BREAKING IT OFF.

At Chiddingwick meanwhile, Dick Plantagenet himself had been oddly enough engaged on rather opposite business. When he arrived at the house in the High Street, so long his father's, he found Maud flown, of course, and nobody at home but his mother and little Eleanor. Now, if Maud had been there, being a forcible young person, in spite of her frail frame, she would soon have stirred up Mrs Plantagenet to take her own view of the existing situation. But the widow, always weary with the cares of too large a family for her slender means, and now broken by the suddenness of her husband's death—thus left without Maud's aid, was disposed like Dick himself to take the practical side in this pressing emergency. To her, very naturally, the question of bread-and-cheese for the boys and girls came uppermost in consciousness. And though it was terrible they

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should have to face that sordid question at such a moment as this, yet that was a painful fate they shared after all with the vast majority of their fellow-creatures, who constantly have to consider practical difficulties of daily bread at the very time when their affections have just been most deeply lacerated. The more Dick talked with his mother, indeed, the more did he feel himself how imperative a duty it was for him to resign his dream, and return home at once, to do what he could for her and his brothers and sisters. He was a Plantagenet, he reflected, and *noblesse oblige*. That motto of his race stood him in good stead on all such occasions. If do it he must, then do it he would. A Plantagenet should not be ashamed of earning his livelihood and supporting his family in any honest way, however distasteful. For no matter what trade he might happen to take up, being a Plantagenet himself, *ipso facto* he ennobled it.

Fired with these sentiments, which, after all, were as proud in their way as Maud's equally strong ones, if not even prouder, Dick went out almost at once to inquire at the *White Horse* about the possibility of his keeping up the rent of the rooms as his father had paid it; for if the scheme was to be worked, no time must be lost over it, so that the lessons might be continuous. He was a capital dancer himself (worse luck!), and a tolerable violinist; and for the matter of that, Maud could help him with the music; though he shrank, to be sure, from the painful idea that the heiress of the Plantagenets, a born princess of the blood royal of England, should mix herself up any longer with that hateful profession. Oh, how his soul loathed it! Indeed, on second thoughts, he decided 'twould be best for Maud to be set free from the classes for her ordinary music lessons. While his father lived, he couldn't have done without Maud; but now the head of the house was gone, never more should she be subjected to that horrid slavery. Enough that one member of the family should give himself up to it for the common good. Maud, poor delicate high-strung Maud, should at least be exempt. If he needed any help, he would hire an assistant.

The interview at the *White Horse* was quite satisfactory—too satisfactory by far, Dick thought, for he longed for a decent obstacle; and as soon as it was finished, Dick felt the hardest part of his self-sacrifice was yet to come. For he had to give up not only Oxford, but also Mary Tudor. For her own sake he felt he must really do it. He had never asked her to think of him till he got his Scholarship; and it was on the strength of that small success he first ventured to speak to her. Now that Oxford must fade like a delicious dream behind him, he saw clearly his hopes of Mary must needs go with it.

They were never engaged; from first to last, Mary had always said so—and Dick had admitted it. But still, they had come most perilously near it. During the long vacation, when Dick had had some coaching to do for matriculation at a neighbouring town, he and Mary had almost arrived at an understanding with one another. Dick was a gentleman now—he had always been a gentleman, indeed, in everything except the artificial position; and since he went to Oxford he had that as well, and Mary felt there was no longer any barrier of any sort interposed between

them. But now, all, all must go, and he must say farewell for ever to Mary!

It was hard, very hard: but duty before everything! With a beating heart he mounted the rectory steps, and for the first time in his life ventured to ask boldly out if he could see Miss Tudor. It would be the last time, too, he thought bitterly to himself—and so it didn't matter.

Mrs Tradescant was kinder than usual. Mr Plantagenet's sudden death had softened her heart for the moment towards the family—perhaps even towards Maud herself, that horrid girl, who committed the unpardonable offence—to a mother—of being prettier and more lady-like than her own eldest daughter. The lady of the rectory was in the school-room with Mary when Ellen the housemaid came in with the unwonted message that Mr Richard Plantagenet—'him as has gone up to college at Oxford, ma'am, has called for to see Miss Tudor.' Mary blushed up to her eyes, and expected Mrs Tradescant would insist upon going down and seeing Dick with her. But Mrs Tradescant had a woman's inkling of what was afoot between the two young people; and now that that horrid old man was dead, and Richard his own master, she really didn't know that it very much mattered. Young Plantagenet was an Oxford man, after all, and might go into the Church, and turn out a very good match in the end for Mary Tudor. So she only looked up and said with a most unusual smile: 'You'd better run down to him, dear; I daresay you'd like best to see him alone for a while, after all that's happened.'

Taken aback at such generosity, Mary ran down at once, still blushing violently, to Dick in the drawing-room. She hardly paused for a second at the glass on her way, just to pull her front hair straight and rub her cheek with her hand—quite needlessly—to bring up some colour.

Dick was dressed in hasty black from head to foot, and looked even graver and more solemn than usual. He stretched out both his hands to hers as Mary entered, and took her fingers in his own with a regretful tenderness. Then he looked deep into her eyes for some seconds in silence. His heart was full to bursting. How could he ever break it to her? 'Twas so hard to give up all his dreams for ever. At last he found words. 'Oh, Mary,' he cried, trembling, 'you've heard of all that's happened?'

Mary pressed his hand hard and answered simply, with a great lump in her throat: 'Yes, Dick dear, I've heard—and all these days long, I've lived with you constantly.'

Dick sat down on the sofa and began to tell her all his story. He told her first about his father's death and the things that had followed it; and then he went on to the more immediately practical question of what he was to do for his mother and sisters. His voice trembled as he spoke, for he was very, very fond of her; but he told her all straight out, as a Plantagenet should, without one word of the disgrace he felt it would be; he dwelt only on the absolute necessity of his doing something at once to provide for the family. 'And under these circumstances, Mary,' he said at last, looking down at her with some moisture in his brimming eyes, 'I feel that my duty to you is perfectly plain and clear; I must release you unconditionally from the engagement

which, as we both know, has never existed between us.'

Mary looked at him for a moment as if she hardly took in the full meaning of his words; then, in a very low and decided voice, she answered clearly: 'But I don't release you, dear Dick—and I shall never release you.'

'But, Mary,' Dick cried, unable to conceal his pleasure at her words, in spite of himself, 'you mustn't think of it, you know. It's—it's quite, quite impossible. In the first place, I shall never be able to marry at all now, or if ever, why, only after years and years, oh, Heaven only knows how many.'

('That's nothing!' Mary sobbed out parenthetically; 'if necessary, I could wait a thousand years for you.')

'And then again,' Dick continued, resolved not to spare himself one solitary drop in his cup of degradation, 'it would never do for you to be engaged—to the local dancing-master. If it comes to that, indeed, I'm sure Mrs Tradescant wouldn't allow it.'

With a sudden womanly impulse, Mary rose all at once and flung herself, sobbing, on her lover's bosom. 'Oh, Dick,' she cried, 'dear Dick, I'm proud of you, so proud of you, no matter what you do—prouder now than ever! I think it's just grand of you to be so ready to give up everything for your mother and sisters. You seem to me to think only of them—and of me—and not a word of yourself; and, I say it's just beautiful of you. I *couldn't* be ashamed of you if you sold apples in the street. You'd always be yourself, and I couldn't help being proud of you. And as for Mrs Tradescant, if she won't let me be engaged to you, why, I'll throw up the place and take another one, if I can get it—or else go without one. But I'm yours now, Dick, and I shall be yours for ever.' She threw her arms round his neck and, for the first time in her life, she raised her lips and kissed him. 'Why, what a wretch I should be,' she cried through her tears, 'if I could dream of giving you up just at the very moment when you most want my help and sympathy! Dick, Dick, dear Dick, we never were engaged till now; but now we *are* engaged, and you won't argue me out of it!'

Dick led her to a seat. For the next few minutes the conversation was chiefly of an inarticulate character. The type-founder's art has no letters to represent it. Then Dick tried to speak again in the English language. (The rest had been common to the human family.) 'This is very good of you, dearest,' he said, holding her hand tight in his own; 'very, very good and sweet of you! It's just what I might have expected; though I confess, being engaged chiefly in thinking of the thing from the practical standpoint, I *didn't* expect it, which was awfully dull of me. But we must be practical, practical. I must devote myself in future to my mother and sisters; and you mustn't waste all the best of your life in waiting for me—in waiting for a man who will probably never, never be able to marry you.'

But women, thank God, are profoundly unpractical creatures! Mary looked up in his face through her tears, and made answer solemnly: 'Oh, Dick, you don't know how long I would wait for you! I want to tell you something,

dear; to-day, I feel I can tell you; I could never have told you before: I wouldn't tell you now if it weren't for all that has happened. Eighteen months ago, when you first spoke to me, I thought to myself: "He's a charming young man, and I like him very much, he's so kind and so clever; but how could I ever marry him? It wouldn't be right; he's the son of the dancing-master."—And now, to-day, dear Dick, you darling good fellow, if you turn dancing-master yourself, or anything else in the world—if you sweep a crossing, even—I shall be proud of you still; I shall feel prouder of you by far than if you stopped there selfishly in your rooms at Oxford and never gave a thought to your mother and sisters.'

She paused for a second and looked at him. Then once more she flung her arms round his neck and cried aloud almost hysterically: 'Oh, Dick, dear Dick, whatever on earth you do, I shall always love you; I shall always be proud of you!'

And when they parted that morning, Richard Plantagenet and Mary Tudor were for the first time in their lives engaged to one another.

That's what always happens when you go to see a girl, conscientiously determined, for her sake, much against the grain, to break things off with her for ever. I have been there myself, and I know all about it.

#### THE SENSE OF SMELL IN ANIMALS.

TASTE and Smell are closely allied, even in man; while in the lower forms of life, especially the aquatic, the organs cannot be differentiated, though there is no doubt of the existence of the sense of smell, for the presence of odoriferous bodies is recognised. What we speak of as the *taste* of certain things—garlic, for example—is really the *smell*, for garlic is tasteless; a blind-folded man can hardly distinguish between the taste of an onion and an apple or between various kinds of wine; nor can a man, when in a dark tunnel, tell whether his pipe is alight or not. Smell, indeed, has been called 'taste at a distance.'

The sense of smell in the higher animals protects the respiratory tract; for the membrane lining the nose forms part of the organ in man and other mammalia; hence, the current of air needed for respiration also conveys odoriferous particles to the nose—thus unwholesome air may be quickly recognised and avoided. Further, the organ of smell being near the mouth, food may be easily examined by its smell before being actually tasted. This nasal membrane contains the olfactory cells, from which a delicate filament passes to the surface, ending in birds, reptiles, and other lower vertebrates, in a fine hair or group of hairs. A second filament runs deeper into the tissue, and is almost certainly there connected with the terminations of the olfactory nerve.

Insects, however, breathe differently, and therefore their organ of smell is probably differently situated, though it is true that some naturalists have endowed even insects with a nose having an organ of smell at the tip; while others have decided that this organ must be near the spiracles



or breathing apertures in the insect's body. It is now, however, almost certain that their organ of smell is in the feelers or antennæ, and partly perhaps in the palpi also. These latter are small jointed appendages attached to the lower lip. Possibly some smells may be recognised by the former, and others by the latter. When food was hidden from some cockroaches by a wall, it was found, evidently by its smell; but the cockroaches could not find it when similarly hidden, after their antennæ were removed. Carrion flies deprived of their antennæ cannot find putrid flesh. The emperor moths, and many other insects, discover their mates by means of their antennæ.

These slender, hair-like antennæ are of the greatest importance in insect life, though the complete and exact purpose (or purposes) they serve is still somewhat a matter of conjecture. They contain thousands of minute hollows, or pits and cones—often filled with liquid—each of which forms a termination to a different nerve, with its special sensory rod or hair. A wasp has some twenty thousand of these pits and cones; a drone-bee still more, the queen and working bees nearly as many; while cockchafers have from thirty-five to thirty-nine thousand; so that it is possible for the antennæ, small as they are, to contain the nerve-terminations, not only of the organ of smell, but also those of hearing and of touch. The small tubes or cones on the antennæ of some creatures, the hairs on others, and the tufts of hairs scattered over the body of yet others, are also connected in some way with the sense of smell.

But whatever may be the means, there can be no doubt that smells are not only perceived, but preferences shown that often seem strange to us. In that charming book, *Recollections of a Happy Life*, Miss North gives an example of some flies choosing a horrible-smelling food. One year when fungi were her particular hobby, she collected as many varieties as possible. Of these, Miss North says: 'One had a most horrible smell; it came up first like a large turkey's egg, and in that state was inoffensive; and as I was very anxious to see the change, I put it under a tumbler in my bedroom window one night, and the next morning was awakened by a great crash. Behold, the tumbler was broken into bits, and the fungus standing up about five inches high with a honey-combed cap, having hatched itself free of its restraining shell, and smelling most vilely. Good and bad smells are merely a matter of taste, for it soon attracted crowds of a particular kind of fly, which seemed thoroughly to enjoy themselves on it.'

Some staphelias have also a bad smell that attracts flies; in trying to get at the nectar, they are caught, cannot escape, and probably have their lives sucked out. The smell is so offensive that flies have even laid their eggs in the flower, mistaking it for carrion!

Bees are very fastidious in the matter of smells; they appear to object to the human breath, especially that of persons recovering from illness; therefore, to approach a hive with safety, be cautious how you breathe. It is probably chiefly by the sense of smell that bees and ants recognise their friends—that is, the members of the same hive or colony—for bees sprinkled with scented

syrup and then introduced into a strange hive will not be molested, as other intruders invariably are. Has each hive or colony, then, its own special smell? Even if this be the case, yet there is probably some other means of recognition as well, for some ants were purposely immersed for three hours, and were yet recognised after their bath—Mr M'Cook, however, disputes this—and friends have been recognised after a separation of six months, and in one case of nearly two years. Although there may be four hundred thousand or more ants in one nest, yet a stranger is at once known and attacked. Even when the pupæ and, in one case, the eggs were removed and restored to the nest later on as ants, they were treated as friends; for ants never appear to get ill-tempered or to quarrel with members of the same colony.

Sir John Lubbock mentions that when he put a few drops of Eau de Cologne or rose-water near the entrance of a hive, a number of bees at once came out to see what was the matter. This they did for several days, but finally lost their curiosity, and took no further notice. Ants are less excitable, and showed but slight surprise when various scents were placed in their path, though they evidently noticed them. A few drops of scent, however, instantaneously stopped some ant-fights, the foes becoming quite friendly, the scent appearing to overpower the smell of the enemy. It is by this sense of smell that ants chiefly find their food.

Animals sometimes show a curious fondness for scents that must be quite foreign to them in their natural state. For example, the late Rev. J. G. Wood describes a pet of his, a coati-mondi, a creature like a raccoon, that loved scent, always finding out any scented handkerchief, even if hidden. It would roll the handkerchief up into a ball, then sniff at it for some time in ecstacy, finally turning round and slowly rubbing it up and down its tail! Leopards, too, oddly enough, are extremely fond of scent; this susceptibility was the sole means used by a lady to completely tame a young leopard which eventually became a great pet. Whenever this leopard was obedient and gentle, she would give it a cardboard tray filled with lavender water; but no such treat was allowed if it scratched or put out its claws. The leopard used to sniff at the scent in the tray for some time and then roll over and over it till all was gone.

It is hardly necessary to dwell on instances of the keenness of this sense in animals; it is one of their chief means of protection from danger; for with many, such as the deer, it is this sense which gives timely warning of the approach of enemies; while some, such as the skunk and gambat, emit a most offensive smell when attacked, as a means of self-defence. With others it helps in the search for food and perhaps water; and with many it acts as a guide in the search for mates.

Smell also forms one of the chief means by which wild animals recognise their friends; some even have special glands like little pockets, which secrete odorous substances. The olfactory region is large in horses, sheep, and swine, but still larger in carnivorous creatures. In seals it is so large and protuberant that it almost blocks up the entry of the respiratory passages, probably

also serving somewhat to warm the air as well as to arrest every passing smell.

The sense of smell is by no means so developed in man as in dogs, cats, and other animals; but it is often abnormally keen in individuals deprived of other senses; blind deaf-mutes, for example, can recognise their friends, and form an opinion about strangers, solely by means of this sense. Possibly, however, animals are only sensitive to certain smells, while unconscious of others that affect us. If this be the case, they would naturally be able to follow up one particular scent more easily than a man—this scent, to which they are sensitive, being to them less confused with others. Dogs are able to track their masters through crowded streets, where recognition by sight is quite impossible; and can find a hidden biscuit even when its faint smell is still further disguised by Eau de Cologne. In some experiments Mr Romanes lately made with a dog he found that it could easily track him when he was far out of sight, though no fewer than eleven people had followed him, stepping exactly in his footprints, in order to confuse the scent. The dog seemed to track him chiefly by the smell of his boots; for when without them, or with new boots on, it failed; but followed, though slowly and hesitatingly, when his master was without either boots or stockings. Dogs and cats certainly get more information by means of this sense than a man can; they often get greatly excited over certain smells, and remember them for very long periods.

Many birds, as is well known, are guided to their food by the sense of smell; but it is doubtful whether this sense is actually as keen in birds and reptiles as has been usually supposed. Mr A. R. Wallace tested the acuteness of smell in vultures, when he was in South America, by throwing food into long grass or wrapping it up in paper. The vultures, which were extremely persistent and annoying in following him, would hop close up to the paper, but without discovering it contained anything eatable, however putrid, and therefore palatable, the contents might be. Nor could they find food when hidden by the long grass. If sticks were thrown down, they would eagerly fly after them, evidently under the impression that they were eatable; yet the vulture's olfactory nerve is five times as large as a turkey's! The sense is, however, very highly developed in the apteryx—the ostrich of New Zealand. This bird has, in proportion to its size, the largest olfactory nerve of any bird, probably even finding the worms beneath the ground, which form its food, by means of smell. Birds, in common with cold-blooded reptiles and amphibians, cannot dilate or contract their nostrils; in fact, these are merely apertures, often so small—as with the heron—that the point of a pin can hardly enter. In crows, these apertures are protected by a stiff bunch of feathers, and in scratching birds by scales. Pelicans have no external nostrils, scents reaching their organ of smell by the palate.

The nostrils of cetaceans are high up, on the top of the head; these form their 'blowholes,' and can be completely closed. With the exception of the balen or whalebone whales, they have, however, no olfactory organ, and therefore no sense of smell. The external orifices in water-

snakes, seals, crocodiles, and alligators can also be closed by means of a valve.

Many fish habitually seek their food by means of smell, slightly aided by touch, but very little by sight. Many 'scent' or search for olfactory impressions. The nostrils are usually double and pocket-like, closed with a valve, and do not communicate with the mouth. Prawns can certainly smell, for, when blind, they can still find food and also find their way home. Crayfish have, besides their long antennae, smaller antennules, each of which has an inner and an outer filament. On the under surface of the outer filament are two bunches of minute flattened organs; these are probably olfactory.

Oysters are very deficient in the matter of senses; they do not even appear to possess a sense of taste, which seems somewhat unfair. They have no eyes—though slightly sensitive to light—no sense of hearing, and very little, if any, of smell; in fact, a very slight sense of touch seems to be all that is left them. Owing to their sedentary habits, they have lost, or nearly so, the foot, which in molluscs often contains the nerves of various organs, such as that of hearing. The foot of a snail is a very superior organ, and contains numerous sensory nerves. Probably some are olfactory, for, though the sense chiefly resides in the horns, the snail still possesses this sense in some degree, even after the horns are removed. The anterior pair of horns or tentacles in a snail have a nerve-knot or ganglion at the end, from which fibres pass to the surface. These may also be olfactory nerves.

The actual cause of smell is still a matter of some dispute and uncertainty. One theory is, that scent is due to particles given off by the smelling substance; if so, they must be infinitesimally small particles; for a single grain of musk is said to scent a room for years; and scent in air that has been filtered through cotton-wool is still recognisable, though the cotton-wool would have removed substances as minute as the one hundred-thousandth part of an inch in diameter. It is more probable that the sense is excited only by the gas or vapour given off by substances, not by the solids or liquids themselves. For water-breathers, however, the substances may be in solution.

Professor Ramsay has lately propounded the very interesting theory that smells are caused by molecular vibrations, slower than those which give rise to heat or light, different smells being caused by vibrations of different rates. This explanation, however, still remains in a theoretical stage.

We know that when we have a cold, so that the mucous membrane becomes thickened, as well as when it is too dry, smells lose their intensity: the olfactory surface, to be sensitive, must be moist therefore. So, too, when the atmosphere is moist, as in the morning, the scents of flowers are more perceptible than when it is dry.

Different odours can be smelt and separately recognised at the same time. It has been suggested that it is because the olfactory nerve has a direct connection with the brain that smell is such a suggestive sense; that 'memory, imagination, old sentiments and associations, are more readily reached by the sense of smell than by almost any other channel.' Dr Oliver Wendell

Holmes says: 'There may be a physical reason for this strange connection between the sense of smell and the mind. The olfactory nerve is the only one directly connected with the hemispheres of the brain, the parts in which, as we have every reason to believe, the intellectual processes are performed.'

## RALPH THORNLEIGH'S PICTURE.

### CHAPTER III.

'MRS TOTWORTHY,' said Ralph Thornleigh to his landlady one morning, 'I've got an order for a picture.'

Mrs Totworthy paused in her work of clearing the breakfast table to stare at her lodger. He spoke with a gravity which would have befitted an announcement that he had been committed to prison for debt. It was puzzling; and she waited to hear more; but Mr Thornleigh evidently had nothing further to say, for he took a letter off the mantel-piece behind him and began to read it.

'And there bein' a matter of three weeks' rent a-owin', I'm glad to 'ear it, Mr Thornleigh,' said Mrs Totworthy. 'I 'ope as you'll arsk for a pound or two on account.'

'I'll pay you up to date if I can get a small advance,' replied her lodger. 'I'm sorry to have been so behindhand lately; but things have not been going well, you know.'

Mrs Totworthy nodded good-naturedly; poor folk understood poor folk, she said, and it should never be told as 'ow she was ever 'ard on them as worked for their bread like herself. And after stealing a furtive look at the letter Mr Thornleigh held in his hand, she took up the tray and left the room.

'There can't be two Colonel Stardales in London,' murmured the young man to himself as the door closed; 'and yet it would be strange if I were brought in contact with him in this way. Let's see; I am to be at his chambers some time this morning between eleven and twelve.' Here Ralph raised a hand towards his watch-pocket, and let it fall again with a little sigh. 'It went ten some time ago,' he continued half aloud; 'so I may as well start at once, as it's a long way.'

He put on the most presentable coat in his limited wardrobe, took his hat, and set out for St James's Street, wondering what might be in store for him. This Colonel Stardale wrote saying that Mr Gustav Schenk, the photographer, had recommended Mr Thornleigh as an artist capable of executing a small order, and requesting him to call and receive directions about the work. The note was written in the third person, and no Christian name or initial proved the writer's identity with the future husband of Beatrice Cairnswood.

Ralph Thornleigh had not been himself for the last few weeks; he had battled bravely with poverty, even with want, until the day he received that letter from Beatrice telling him of her engagement to Colonel Stardale. Then he lost heart: hope and ambition took wing together, and left him caring little whether he had work or not. He felt no jealousy of his unknown rival; only a helpless envy for the wealth which had gained him Beatrice. If the man whose letter lay

in his pocket were her intended husband, he could meet him and converse as composedly as though he were a total stranger.

He found the house without difficulty, and was ushered up-stairs into a luxuriously-furnished room, where he was requested to wait until 'the Colonel' was informed of his arrival. Many months had elapsed since Ralph had been inside a gentleman's house, and he stood looking round at the treasures which filled the room, awkwardly conscious that his shabbiness was out of place here. As he glanced from one picture to another, an envelope lying on the writing-table caught his eye, and half involuntarily he looked at the address, 'Colonel Melton Stardale;' and the handwriting was that of his lost love.

He had scarcely taken in the fact that he had indeed been summoned by Beatrice's future husband, when the door opened, and the Colonel entered. 'Mr Thornleigh, I believe. Sit down, Mr Thornleigh. I am indebted to you for your prompt attention to my note.'

Ralph bowed silently, and took the chair indicated. It was obvious that Colonel Stardale had no suspicion who he was, and he waited to hear what work the gentleman had for him to do.

'I am informed that you excel in copying portraits, Mr Thornleigh,' the Colonel went on, 'and shall be glad if you have time to undertake a commission of the kind for me.'

Ralph would be very happy. He was to enlarge a photograph of Colonel Stardale, no doubt.

'I have a copy of the portrait here,' said the Colonel, opening a drawer and handing a cabinet photograph he took therefrom to Ralph. 'I trust you will be able to do justice to it.'

With a superhuman effort, the young man controlled himself as he took the picture in his hand. His heart was beating as though it would burst; but he sat listening to his patron's directions with a face as unmoved as that on the card before him.

'I could have wished the lady to have given you a few sittings,' continued Colonel Stardale, 'but am anxious to keep the fact that the picture is being painted a secret from her. I—ah—intend it for a wedding gift,' he added with explanatory condescension.

Ralph, who had risen to receive the photograph, grasped at a chair to support himself, and prayed silently that the interview might come to a speedy end. He should betray himself if tried much further.

'Can you manage to paint the picture without sittings?' inquired the Colonel.

Could he portray the face which haunted him day and night! His voice sounded hoarse and distant to himself as he replied that he could; had often done so before.

'Will you be good enough to mention your terms?'

'Twenty-five guineas,' answered Ralph, scarcely knowing what he said.

Colonel Stardale signified his willingness to pay the sum named, and asked that he might be informed when the picture was ready. Ralph promised to write; and declining the glass of sherry his patron offered, reached out a trembling hand for the photograph. He forgot to ask for an instalment of the money; he never thought

of inquiring whether the picture was wanted by any special date; his brain was paralysed, and he groped his way down-stairs like a man walking in his sleep.

He did not remember his empty purse until he arrived in Wenside Street, when Mrs Totworthy reminded him of his promise in respect to that little matter of rent.

'Forgot!' ejaculated the good woman; 'well, I never!'

'I'll write at once,' said Ralph; 'don't bother me just now, there's a good soul.'

Mrs Totworthy studied his pale drawn face for a few seconds and accused him of being ill. When Ralph humbly denied the charge, she modified it to an assertion that he wanted some tea; that beverage, brewed the colour of London double stout, being Mrs Totworthy's panacea for all human ills.

Ralph wrote his letter to Colonel Stardale, and drank the tea his landlady pressed upon him. Then he went out to order a canvas for the picture. He had been telling himself ever since he returned to his rooms that he must harden his heart, and set to work on the portrait as he would upon that of a stranger; that he must forget what Beatrice was—had been—to him, and deal with Colonel Stardale's order as a pure business matter. It had come in the nick of time, for he had hardly a shilling in his pockets.

He ordered the canvas, and arranged to call for it on the following morning. Then he bought something to eat, and decided, as this was the last idle day he was likely to have for some weeks, he had better go for a walk. He had not ventured into the better parts of the town, where he might meet people he knew, for a long time. But this afternoon he was conscious of a hungry yearning to obtain a glimpse of the happier world whence he had so lately fallen; so he turned Westward and went into the Park.

He wandered across the grass, past the Serpentine, and mingled with the crowd. His acquaintance in London had not been a very wide one, and he grew more confident as he strolled along without encountering any one he knew. There were plenty of men there in boots as patched, in hats as disreputable, and trousers as baggy at the knees as his own. No one noticed him; and as he leaned over the railings to watch the carriages as they rolled by in a continuous stream, he began to think that the strict seclusion to which he had condemned himself had been unnecessary; that this would have been a better place to lounge away his hours of enforced idleness than his gloomy rooms. Two or three conveyances passed whose occupants he knew; but though he met the gaze of some, they appeared not to recognise him; and he derived a melancholy satisfaction from their shortness of sight or memory.

It was a lovely afternoon in early March, and numbers of people were driving in the Park; the endless procession of carriages grew denser as Ralph stood watching, and now and then it paused to move on again at a foot-pace until the way became clearer. Ralph had been a great horseman in the days when his father lived, and the horses received more of his attention than their owners. Presently, a pair of thoroughbred bays were sharply pulled up right in front of

him; he looked the animals over with critical admiration as they chafed and fretted, then raised his eyes to glance at the people in the carriage. On one seat he saw Colonel Stardale, and a lady he recognised as Miss Macallan; and as the 'block' eased off and allowed the equipage to move on a few paces, he saw Beatrice Cairnswood right before him almost within arm's length. A half-suppressed exclamation escaped his lips; she turned, and their eyes met. The carriage drove on and Ralph hurried away towards the Corner, and lost himself in the street crowds. He had seen her again after a separation of many months, and with a look upon her face that had burnt into his inmost soul: he felt that unless he found food for his mind, he should lose his reason; that he must work or go mad.

Next morning's post brought him Colonel Stardale's cheque for ten pounds, and he lost no time in cashing it, and bearing home the canvas which was to receive the portrait of Beatrice. Noon found him at his easel, charcoal in hand; but no photograph stood on the ledge before him. He wanted no aid so paltry as that. Mr Schenk's production would only hamper memory, and from memory he intended to paint her.

Never before had Mrs Totworthy known her 'fourth-floor front and attic' so busy, or so silent at his meals; he rarely spoke to her, and though she strove to spur him into speech with stale bread and underdone chops, he ate without remark whatever she placed on his table. It puzzled Mrs Totworthy. Mr Thornleigh at one time had been the lightest-hearted of men; then all of a sudden he had grown miserable and dejected, passing day after day in listless idleness. Now he was all haste and energy, swallowing his breakfast in ten minutes, and rushing up-stairs to the attic 'studio' where he spent every hour of daylight. That the secret of the change lay in the little room under the skylight, Mrs Totworthy could not doubt; but as Ralph kept the door locked, and the keyhole loyally refused to disclose the mystery, the landlady gave up trying to solve it, and exhausted her ingenuity in the wildest conjectures. This state of affairs continued for some weeks; but at length the young artist ceased to work at high pressure, and, as Mrs Totworthy observed, 'took it easy' again. That glimpse of Beatrice in Colonel Stardale's carriage had inspired Ralph Thornleigh. As he hurried out of the Park that day he gave up all thought of copying the photograph with the cold exactness he was used to bestow on such work. He threw himself into the picture heart and soul; he lived in it, and for it only, wielding his colours with a deftness that surprised himself. Now it was finished, and he was lingering over the accessory details, bent on showing up the face to the best possible effect. He spent far more time than was at all necessary over this; but he had come to dread the day when he must part with the picture, and made a lengthy process of 'touching up' an excuse for postponing it. He had not brought the photograph into requisition at all; the pose was simplicity itself, and the dress was not an elaborate creation which required 'copying' in the accepted sense of the term.

Now his labour of love was completed, and for the first time Ralph took Mr Schenk's pro-



duction and placed it beside his own picture. He smiled sadly as he did so; they were so like and yet so different. The photograph showed a calm passionless Beatrice. The portrait showed the Beatrice Ralph had seen for a moment in the Park, and he had caught the expression she wore as their eyes met, with startling fidelity. It was a master-piece; but it was not a copy of the photograph, and Ralph knew it. He did not care; a fierce recklessness possessed him, and he would not raise his brush again. Colonel Stardale should see his bride through her lover's eyes.

He had taken so long to execute his commission that he was not surprised to receive from the Colonel a note asking what progress had been made, and when he might expect to receive the portrait. Ralph wrote back that he had just put the final touches, and would bring the canvas to St James's Street next day. This offer the Colonel declined; he would take the liberty of inspecting the portrait at the studio, with Mr Thornleigh's permission, so that the artist might be spared the trouble of carrying it to and fro if any trifling alterations should be required.

Accordingly, No. 210 Wenside Street was honoured with a visit from that gentleman the following day; and Mrs Totworthy was thrown into a paroxysm of intoxicated pride by the spectacle of a brougham and pair with servants in livery standing for a full twenty minutes at her own door. The oldest inhabitant failed to recall a precedent for such an apparition in Wenside Street; and as Mrs Totworthy marked the rows of open windows thronged with gaping neighbours, she resolved that no irregularity in Mr Thornleigh's weekly payments should cause her to weigh the propriety of giving him notice, as she had sometimes done ere now. A lodger who received such a visitor as this raised the tone of the house, and deserved the utmost consideration.

While Mrs Totworthy and a select circle of female friends were thus innocently enjoying themselves on the ground-floor, Colonel Stardale, seated in Ralph Thornleigh's chair, was studying the portrait through his eyeglass with looks which denoted anything but gratification. After a short survey, he leaned back and beckoned majestically to the artist, who stood at a respectful distance awaiting his verdict.

'I am disappointed, Mr Thornleigh,' he said; 'I am sure the lack of resemblance between your copy and the original must be patent to you. It would be remarked by the merest tyro.'

Ralph could not defend himself, and made no reply.

'I have no doubt you have done your best, but you must pardon my telling you that this is simply a caricature.' He tapped the canvas with his glass as he spoke and paused, as though expecting an answer; but none was forthcoming, and the Colonel continued.

'By no stretch of imagination can it be called a copy, and I will not trouble you to make another attempt. I am surprised at this result of following Mr Schenk's recommendation. I shall take an early opportunity of expressing my views to him on this point.'

It was a matter of supreme indifference to Ralph whether the photographer paid with his life for his misdeeds, so he remained silent.

'You are prepared to hear that I cannot accept this—ah—picture, Mr Thornleigh?'

'Of course I do not expect you to take it if it does not give you satisfaction,' replied Ralph.

'I am very sorry to disappoint you,' said the Colonel, rising from his seat. 'We will say nothing about the—ah—small advance you received. The work has, I doubt not, cost you much time.'

'You are very good,' rejoined Ralph, 'but'—, recollecting he had just eight shillings and ninepence in the world, he broke off abruptly.

The Colonel waved a patronising hand, and begged him to say no more on the subject.

'And oblige me, Mr Thornleigh, by destroying that—ah—picture. I will assume that I have purchased the right to request its destruction. Ah! the photograph,' he added, as Ralph handed it to him. 'Thank you, Mr Thornleigh. Good-morning to you, Mr Thornleigh.'

Ralph escorted the Colonel down-stairs, saw him into his brougham, and then came back to his studio, where he sat down and devoured Beatrice's portrait with all his eyes. 'A caricature.' Was it?

'I may be wrong,' he said half aloud, 'but I think not. Anyway, I won't destroy it. I think I'll ask Brandon to come and take a look at it; there's something in it if I'm not mistaken.'

Mr Brandon was a brother-artist who had commenced life in London at the same time as himself, but who had advanced many steps farther than he had on the road to success. He lived in a quiet street off Cavendish Square, and thither Ralph repaired, soon after Colonel Stardale had gone.

He found Mr Brandon at home, and obtained his promise to come to Wenside Street on the following day to criticise the 'Portrait of a Lady,' which he jealously declared to be a creation of his own fancy. His friend knew nothing of Miss Cairnswood, and Ralph had no intention of disclosing the true story.

In due time Mr Brandon appeared at his lodgings, accompanied by another artist whom he had encountered on the way; and the committee of inspection went to the studio.

'Well, what do you think of it?' asked the young painter, after the two had placed his picture in a few different lights, and scrutinised it from as many distances as the room permitted.

'I'll tell you what my opinion is, Thornleigh,' replied Mr Brandon. 'I think that's a work for the Academy, and I shall be surprised if Danes doesn't think so too.'

Mr Danes, who was a man of few words, nodded emphatically. 'Talent there. No two words about it. Love in Despair. The Academy, of course.'

Ralph had fallen in love with his picture, which was scarcely to be wondered at, all things considered. But he had never anticipated that his friends would rate its artistic merits so highly, and slumbering ambition sprang up again.

'If you fellows really mean what you say, I'm sincerely grateful for your advice,' he said. 'But what about the frame? I tell you frankly I'm on my beam-ends, and don't know any maker who would trust me.'

'Know Bubblestock?' inquired Mr Danes, thoughtfully.

Ralph shook his head; he knew Mr Bubblestock's gallery in Bond Street, but had never met the proprietor.

'Sharp man,' said Mr Danes—'knows a picture when he sees one. Give you a letter of introduction.'

'You're very good; but I don't quite follow you.'

Mr Danes, who had seemingly exhausted his stock of language, looked appealingly at Mr Brandon, who promptly explained.

'Bubblestock has a great idea of Danes' opinion, Thornleigh,' he said. 'If Danes advises him to come and see your picture, he will be round here like a terrier after a rat. His approval is a certainty; and he will supply you with the frame if you promise him first refusal of the picture after the Academy closes. He is a very liberal man, and will give you a good price. You will have got your foot on the ladder, my boy, if Bubblestock takes you up.'

Ralph's eyes glistened, and he turned to Mr Danes with a torrent of thanks.

'Notepaper!' demanded that gentleman with brusque but practical economy of words.

He was speedily placed at the table with writing materials, and he scribbled off his note to the great picture-dealer, whose fiat had been the making of more than one artist. 'Go at once,' he said, handing Ralph the missive. 'Don't waste time talking.'

'No one ever accused you of that, Danes,' laughed Mr Brandon as they prepared to leave.—'Good-bye, Thornleigh. I shall come and congratulate you when the critics have said their say about your work.'

When they had gone, Ralph threw himself into a chair to think over the situation. The picture, as a picture, was evidently destined to succeed. But how would Beatrice like to see herself in the Academy in this guise, supposing it were actually 'hung'?

His mind was quickly made up. He went to his desk and wrote to her. He said nothing of Colonel Stardale's commission; that did not affect the point at issue. He told her how, after seeing her in the Park, he had painted her portrait, and how friends whose opinion was trustworthy had strongly advised him to exhibit it. Would she allow him to do so, withholding her name? If she were in the least averse to the idea, he would not think of doing so.

Beatrice replied by return of post; she told him to act upon his friends' recommendation and exhibit the picture with or without her name, as he thought best. If she were thus the means of bringing him success at last, she should be happier than she thought it possible she ever could be again.

So Ralph went to see Mr Bubblestock, and that authority lost no time in coming to see the picture. Our friend was almost happy when he retired that night. The dealer had done more than Mr Brandon predicted. He undertook to send for the canvas, frame it at his own expense, and despatch it to Burlington House. He stipulated for 'first refusal' when the Academy closed, and paid Ralph thirty guineas down by way of earnest money. And, finally, he promised to bear

the young man's name in mind, when he had any work to be done.

That was a red-letter day in Ralph Thornleigh's calendar, and he celebrated it by dining sumptuously at the Criterion. He was very doubtful about his right to dispose thus of Beatrice's picture, when Colonel Stardale had waived the advance he made on condition that the canvas should be destroyed. But he overcame this difficulty; he put a ten-pound note in an envelope, wrote a few lines to the Colonel, saying he wished to keep the picture, and so felt bound to refund the money, and took the letter down to St James's Street himself. That done, he walked home with a clear conscience; Beatrice's picture was his own now to do what he pleased with.

#### SEWAGE TREATMENT BY THE ALUMINO-FERRIC PROCESS.

THE problem of Sewage Disposal is one that is constantly with us, and which appears, nevertheless, as difficult of solution as in the earliest days of sanitary science. Various methods of disposing of sewage are in vogue, each accompanied by its own drawbacks and disadvantages, and no system has yet so demonstrated its claim to superiority as to compel its universal adoption to the exclusion of all others. Indeed, so widely divergent are the local exigencies of each individual case, that every locality should be considered in regard to the special circumstances surrounding it; and a hard and fast system applicable to every case is, in our present state of knowledge, scarcely likely to be attained.

As our readers are aware, the methods of sewage disposal may be ranged into three great classes: (1) Direct discharge into a river, an estuary, or the sea; (2) Land irrigation, popularly known as sewage-farming; (3) Chemical precipitation or deodorisation. The first-named system in the case of rivers is obviously productive of much nuisance and danger to public health; and even in cases where discharge to sea is possible, much difficulty prevails in obviating all evil effects, and in completely safe-guarding against unpleasant consequences at all states of the tide and in every wind. Moreover, on strictly chemical grounds, and viewed as a matter of economic science, the loss to the country by such means of immense quantities of fertilising agents, which preferably should enrich and ameliorate the soil, is regarded by practical sanitarians and skilled statisticians as contrary to sound principles.

The second method—treatment by land irrigation—though sound enough in theory, presents many features of difficulty in practical application, the greatest of which is perhaps that of obtaining sufficient land of any kind, especially in densely populated districts, where, of course, sewage treatment is most urgently required. Thus Dr Letheby estimates that to irrigate with the sewage of London would require two hundred thousand acres, or an area nearly three times that of London itself. Another great difficulty is the unintermittent supply to be dealt with, whether the soil needs it or not, and whether the farmer's

operations require manure or not. Moreover, in all weathers the supply is maintained, with the practical result that it is not infrequently turned into the nearest river or the sea in times of necessity, when it cannot be dealt with on the land. Storm-water is, moreover, a constant source of difficulty, as it largely augments the volume of material to be dealt with, and increases to a considerable extent the area of land requisite for the sewage farm. When it is considered that rain is calculated to fall in this country on no fewer than an average of a hundred and fifty days in the year, the importance of considering the volume of rain-water passing into the sewers of a city will be realised.

We now pass to the third system of dealing with sewage—by chemical precipitation; and the problem resolves itself into the practical question of what is the best and cheapest material to yield an effluent clear, colourless, permanently non-putrescent, and capable of sustaining fish-life, whilst producing a 'sludge,' small in quantity, easily filter pressed, containing as much of the manurial constituents of the sewage as possible, and able to be kept without producing smell or nuisance. With a view to meet these requirements, the substance known as 'Aluminoferrie' has been invented and patented by the Messrs Spence of Manchester, and is at the present time already employed in over thirty towns and villages in this country for sewage purification. Aluminoferrie can be applied in two forms, either solid or in a liquid state: in the former case, slabs twenty-one inches long by ten inches wide by four inches thick are manufactured, and are simply placed in a cage fixed in the flow of the sewerage, such method being found very advantageous for dealing with small quantities of sewage up to about half a million of gallons in the twenty-four hours. In the case of larger quantities, it is found more economical to dissolve the aluminoferrie in a special vessel, admitting it when dissolved into the flow of sewage, the quantity admitted being automatically regulated as the volume of sewage fluctuated. The quantity of aluminoferrie required varied necessarily in every instance, and may be stated to range from seven to twenty hundredweight per million gallons of sewage, the latter quantity being requisite when much dye and other colouring refuse requires precipitation. The disposal of the 'sludge'—that is, the solid matter precipitated when the clear effluent has flowed away—is mainly of course one of cost: in some instances it is conveyed to sea; in others, either pressed or uncompressed, it is used for manurial purposes, the advantages of compressing the cake being the great reduction in volume obtained, with increased facility in handling, storing, and transporting.

The advantages of the aluminoferrie process may be briefly stated to be the perfect simplicity of the system, together with the purity of the effluent produced. Being in solid slabs, aluminoferrie is easily handled, and the cost of the substance is only from £2, 15s. to £3, 5s. per ton, varying necessarily with the length of carriage incurred. The process requires little or no alteration of plant, where suitable settling tanks are already provided, and is readily under-

stood and carried out without special skilled supervision. As already stated, the process is being used with much success, and bids fair to obtain extended development as its advantages become known.

### THE HOARD OF THE VAZIR KHANJI.

By HEADON HILL.

It was high noon, and traffic through the city gate of Dilnagar had died away. One by one, creaking bullock-carts and footsore travellers, toiling across the dusty plain towards the ancient Kattiawar stronghold, had come to a halt under what shade they could find by the wayside, to wait for the cool of the evening for the fulfilment of their journey. And there were none in the city whose business was so pressing that they were compelled to leave its shelter in the blistering glare of the mid-day sun. In a few days the south-west monsoon—the much-needed *bara barsāt*—would break, gladdening the thirsty land with plashing showers, and cooling the sultry air with breezes fresh from the Indian Ocean. Then, for a month or two, crowds would jostle through the narrow archway in two unceasing streams from dawn to sunset again. But at the hottest hour of this broiling day the main artery of Dilnagar was pulseless.

Not quite deserted, however, and not quite silent, was the gateway. A wild-looking matchlock-man, one of His Highness the Thakore's bodyguard, slumbered peacefully in his niche, waking the echoes of the archway with a series of blood-curdling snores. The sounds proceeding from the sleeping guard drowned all others, even the lazy hum of the distant bazaar; but a pair of sharp ears listening intently might have discerned a fainter sound, which ever and anon struggled to assert itself in plaintive contrast to the harsh discord that quelled it—the sound of a feeble voice crying in the Guzerati tongue: 'Water! For the love of God, bring me water, or I die!'

The wailing cry came from the foot of the city wall just outside the archway, and at first sight it would have been difficult to identify its origin with anything human; so bent and huddled was the shapeless filth-encrusted form from which the voice proceeded. But on nearer inspection the wizened features and glittering beady eyes, half hidden with masses of tangled and dirty hair, would have proclaimed their owner a man, and a man in sore extremity. He was only sustained from falling prone to the ground by an iron ring round his neck, the other end of which was built or thrust into the city wall in the form of a staple, and which thus kept him in a sitting posture. His clawlike hands were furnished with nails half a foot in length, and these were dug in agony deep into the burning sand. The fragments of a broken *lotah*, or water-vessel, at his side told plainly of the accident that was doing the Fakir Indrajī to death.

For nigh on seventy years the Fakir had borne his self-inflicted torture outside the ancient gateway. There were old men in Dilnagar, but none so old that they could remember the time when that spot had been tenantless. Day and night through the long years the holy man had sat there, bound by his iron ring, begging and

praying by turns till he became one of the institutions of the place, and pilgrims came to touch his hoary locks and go away comforted. His wants and absolute necessities, such as they were, were attended to by the priests of a neighbouring temple, one of whom came twice a day to bring him food and bear off any alms he might have taken. Indrajai retained nothing for himself. None can say for how many years longer he would have kept his post, had it not been for the chapter of accidents which broke his water-vessel and brought the sleepiest soldier of the Thakore's bodyguard on duty at the same burning noontide; but as it was, the aged Fakir's time was come.

Fainter and fainter grew the old man's cries for help, till they were little more than a wordless moan. His head fell back against the encircling collar, and his tongue began to loll from his parched lips; but still no one came, and the pitiless sun went on baking the wall behind him to the temperature of an oven. The fierce black eyes were becoming glazed, and the familiar objects on the plain were assuming fantastic shapes in the disordered vision of the dying man, when suddenly a distant footstep brought a ray of hope—a firm, swinging footstep, too, that told of honest boot-leather—not of the shuffling approach of some sandal-shod or bare-footed native. Nearer and nearer up the road from the open country came the welcome sound, and just as Indrajai put all his remaining strength into one last feeble cry of 'Water!' a tall young Englishman sprang to his side, and, unslinging a leathern bottle, held a cup of the cooling liquid to the Fakir's lips.

'Thanks, Sahib, thanks,' the old man murmured in Hindustani as he finished the last drop of the precious draught. 'You come too late to save my life, though in time to make death easier. Thy servant is grateful.'

'Tell me where I can find help or how I can move you from here,' answered the young man, whose dusty, travel-stained appearance and inquiring glances bespoke him a stranger to Dilnagar.

'You have given me all the help I need,' replied the Fakir, 'and I move not from this spot till the Angel of Death releases me from my vow. Indrajai is weary, and thanks God that that time is at hand.—But tell me of yourself, young Sahib. Feringhis are scarce in Dilnagar. 'Tis close on a year since a white face passed through the city gate.'

'It is because white faces, as you call them, are scarce in Dilnagar that I am here,' laughed the young Englishman a little bitterly. 'There are times, as you must know, good Fakir, or you would not have adopted this mode of life, when the society of one's fellows is best avoided. It is so with me.'

'So young, so brave, so merciful, and yet with the sound of despair in his voice!' the old man half whispered to himself, eyeing his visitor intently. For a few moments he seemed to fall into unconsciousness, and gazed out over the plain with a far-away expression on his face that was eloquent of the coming end. But just as the Englishman had decided to go for assistance, the Fakir spoke once more.

'Feringhi,' he said, 'I have not many hours

to live. To-day's parching thirst has conquered a body worn out with the batterings of close on a hundred years, seventy of which I have spent as you see me now. You have relieved me in my sore necessity, and I would fain do you a service. Perchance you will not believe in the old Fakir's charms and amulets, but I beg of you to put it to the test, and see if Indrajai has not spoken truly. Take this, and open it only when you know that I am dead. It will bring you your heart's desire.' As the Fakir spoke, he fumbled in the ragged cloth that girt his loins and drew forth a quill, three inches long and sealed up at both ends. This he thrust into the young Englishman's hand. 'All that that charm may bring you,' he proceeded, 'is yours, bestowed by Indrajai the Fakir for reasons which will hereafter be revealed to you. All that I ask in return is, that you mention that quill and its contents to no one—no matter whether he be Sahib, Hindu, or Mohammedan—till you have read and understood what the quill contains.—Have I your promise to preserve absolute silence? You will not have long to wait before you may break the seals.'

The young man slipped the Fakir's charm into his pocket and gave a careless assent. Naturally, he had no faith in the old mendicant's wizardry; but his good nature prompted him to humour the quaint request. Satisfied that the gift had been graciously received, Indrajai made a sign towards the gateway.

'Now go on your way, Sahib,' he said; 'and as you pass the temple with the red walls, before you reach the great bazaar, stop, of your goodness, and ask one of the holy men to come to me. My blessing go with you.'

The traveller, seeing that he could be of no further use, took the Fakir at his word. Passing through the gloomy archway, where the matchlock-man still slept on, he struck into the main street that led through the heart of the city, and, after giving information of the Fakir's condition at the temple which had been indicated, made his way to the semi-barbaric palace of the Thakore. While he is parleying with the doorkeepers and doing his best, by persuasion and a little 'backsheesh,' to obtain an audience of the great man, let us see what it is that brings Basil Heygate on foot and alone to a purely native city in a non-British State, where Europeans are seldom found.

Only a month before, and Heygate had been one of the gayest and smartest subalterns in the 30th Hussars, which regiment was then quartered at the up-country station of Mhow. He was a favourite with his brother-officers and with the men; his father was wealthy, and made him a liberal allowance from home; and his professional duties were carried out in a manner which ensured him a successful military career. Suddenly, one fatal mail-day all his bright prospects were dashed to the ground by the receipt of a letter from England which told him that his father had been ruined by unfortunate speculations, and had died under the shock. It was quite impossible for Heygate to remain in the service under the altered conditions. Without the handsome additions to his pay which he had received from home, he would barely be able to defray the mess expenses of a crack cavalry



regiment; and he took the only course open to him. He laid the circumstances of the case before his Colonel, obtained six months' leave of absence to England, pending retirement, and went down to Bombay with a view to returning home by the next steamer. But here a sudden impulse changed all Basil Heygate's plans. While waiting at the hotel, he chanced on a paragraph in one of the Bombay papers announcing in a jocular vein that Gholam Singh, the Thakore of Dilnagar, was about to purchase the cast-off uniforms of a native infantry regiment, in order to give the half-wild levies who formed his body-guard the semblance of civilised troops. The writer of the paragraph drew a humorous picture of the figure these hitherto half-clad warriors would cut when dressed as regular soldiers, but without any knowledge of drill; and he ended by advising the Thakore to buy up 'a second-hand sergeant-major' to supply the deficiency.

The hint was enough for Heygate. If the Kattiawar chieftain was bent on Europeanising his forces, he, Basil Heygate, was the man to do it for him. It would be a terrible drop for the once gay officer of hussars to swell the retinue of a native rajah, even though he were appointed generalissimo to begin with; but it would be better than the idleness and uncertainty which would be his lot on reaching England; and at anyrate, if he found the new life unbearable, he was not compelled to stay. Again, Dilnagar being a 'protected' State only, and not immediately under British control, there would be none of his fellow-countrymen there to remind him by their presence of his own altered position. As for his retirement from the English army, it would be just as easy to send in his papers from Dilnagar as from London; and having six months' leave, there was no need for haste. After a risky week's voyage in a native craft to Verawal, the Kattiawar port, where he left his baggage, an eighty-mile tramp brought him to the scene of his adventure with the Fakir.

Thus it was that Basil Heygate found himself ushered into the presence of Gholam Singh, Thakore of Dilnagar, and vassal of Her Most Gracious Majesty the Empress of India. Gholam Singh was a fifth-rate potentate, not even deemed worthy by the supreme Government of entertaining a British 'Resident' at his court, the result being that Dilnagar was about the worst administered State in the peninsula. The Thakore taxed his unfortunate people to the last possible *pie*, spending the hardly-wrung revenue, firstly, on the price of immunity from annexation which he paid in the form of tribute to the Government; and secondly, on the selfish and indolent pleasures so dear to the Oriental mind. The history of the State of Dilnagar to some extent accounted for the grasping character of its rulers. Gholam Singh and his family were not indigenous to the soil. He was third in succession to Feroz Singh, a warrior chieftain from the north, who had conquered the country some time about the commencement of the century, only to find that the prize was not up to expectation. The then ruler of Dilnagar was captured and slain by Feroz Singh; but the vast treasure with which the palace was accredited was never discovered, having been concealed just before the entry of

the enemy, in some inaccessible hiding-place, by the Vazir Khanji, prime-minister and chief officer of the household. The Vazir himself was supposed to have fallen in the conflict which resulted in the taking of the city, and with him had apparently perished all chance of ever discovering the whereabouts of the treasure. Those who know the ways of Eastern conquerors will understand that the absence of spoil which was known to exist did not improve the lot of the conquered. Feroz Singh did his best to make up the deficiency by oppressing the people; and his descendants were faithful followers of his example.

His Highness the Thakore received Heygate in semi-state; that is to say, the audience was given in what he called his 'presence chamber,' an apartment furnished with a mixture of real Oriental magnificence and second-hand European goods, bought cheap at some sale in Bombay. He emphasised the unofficial nature of the reception by lying at full length during the interview on a common iron bedstead, which was covered with silken cushions of rare workmanship; and while Heygate was preferring his request for military employment, he played cup and ball diligently. But before he had said a dozen words, Heygate knew that his petition was to be granted. The air of insolent indifference which Gholam Singh chose to wear towards an Englishman not in Government service failed to hide a triumphant sparkle in his lazy eyes at the idea of possessing this well-knit young officer for his own. As Heygate painted in his best Hindustani a glowing picture of what the Dilnagar troops would become under his tuition, successful efforts at cupping the ball became less frequent, and finally the Thakore flung the toy aside and listened unaffectedly. Basil Heygate was a new plaything worthy of attention, after all.

'Your Highness would thus acquire an army, small perhaps in numbers, but one which in discipline and drill would put to shame the forces of Scindiah, Holkar, and the Nizam,' concluded the applicant, who was nothing if not thorough.

'My friend, say no more. I appoint you from this hour to the post of Chief Sirdar of my army. No man who serves Gholam Singh has cause to complain of his master's generosity, and you shall have free quarters in the palace with a salary of two hundred rupees a month,' said the Thakore with the air of a man who was doing a noble deed. The sum he offered to his new 'general' was less than the pay of a lieutenant in the English service; but it would be enough, Heygate thought, in a native city, where there were no social duties and no style to keep up.

'Rajab,' proceeded the Thakore, addressing one of his ministers, 'assemble such of the body-guard as are on duty in the courtyard, so that the Sirdar may see his new command.'

The Thakore proceeded to a window, followed by Heygate and by the other more or less reputable-looking members of his suite. In a few minutes some fifty men entered the courtyard below, and 'fell in' in a manner which suggested that they had heard of such a thing as drill, if they had never seen it. The attempted imitation of civilised troops was further accentuated by the use of English words of command, which the native havildar in charge shouted

parrot-like without knowing a word of the language he borrowed from. The men were well-built sturdy fellows enough, but uniform was unknown among them. Some few wore the ancient chain-mail in which the Saracens fought; others were dressed in scraps of old European regimentals; those who had tunics not wearing trousers, and *vice versa*; but the majority were in native costume, ragged, and none too clean. They were all armed with matchlocks about seven feet long. The effect of the operation which their officer called 'Shudder humps' with these pieces was so ludicrous that Heygate smiled.

'I understand that Your Highness has purchased European uniform for the men,' he said. 'That will greatly improve their appearance.'

'Yes,' replied Gholam; 'I have well nigh depleted my treasury to do so.'

'If I am to do justice to your patronage,' continued Heygate, 'the men should be furnished with modern rifles, or at anyrate with percussion muskets. A soldier-like appearance while they are armed with those matchlocks is out of the question.'

To the young officer's surprise, his suggestion threw the Thakore into a state of hysterical rage and excitement. He took off his turban and tore his hair; he spat upon the floor and flung his arms over his head; and all the while he bewailed his unhappy lot in having been cheated of what he considered his patrimony by the failure of his ancestor to unearth the plunder of Dihnagar. Here, he moaned, he had set his heart on having a smart body of troops round him; he had ordered a bargain in second-hand uniforms, and a brilliant Sirdar had been engaged; but the whole project was to be spoiled because he had not money enough to buy rifles. His Highness, in fact, comported himself after the manner of a thwarted Oriental potentate, which is very much the manner of a thwarted child. When he became calmer, he dilated to Heygate upon the circumstances of his enforced poverty, and finally dismissed him to quarters which he ordered to be prepared for the new Sirdar. The Thakore closed the interview with an intimation that Heygate's duties would commence on the morrow, when there would probably be entrusted to his care a scheme for providing the bodyguard with muskets or rifles.

For the first time in his life the young Englishman salaamed to what a month before he would have called a 'dirty nigger,' and retired. He had already conceived a wholesome contempt for his master, but, on the whole, he was satisfied with his day's work. At anyrate he had obtained what he came for, and though that was not much, it was the means of earning his livelihood in a profession he understood. Far better that than walking about the streets of London penniless in search of employment which was sure to be uncongenial. Thus he ruminated as he discussed his first meal under Gholam Singh's roof in one of two large but barely-furnished apartments that had been assigned to him. The bedroom contained nothing but a common native 'charpoy,' not nearly so good a one as that on which his own kitmutghar had slept; and the sitting-room boasted only a rickety table and two chairs; but the curried fowl was well cooked and

decently served—a fact which prevented the tired traveller from indulging in too gloomy comparisons between his present quarters and his luxurious bungalow at Mhow.

Heygate's reflections were interrupted by the entry of Rajab, Gholam's prime-minister and general factotum. Rajab was short and stout, with a cunning twinkle in his eye that suggested an entire want of principle, relieved by a dash of droll humour. If he set himself to cheat any one, as in truth he did very often, he would do it with an air of facetious relish, as though he cheated not for gain but for the sake of having his little joke. He saluted Heygate politely, and seated himself in the other chair.

'I bring your orders, Sirdar, for to-morrow,' he began. 'His Highness desires you to take two hundred men and to march to Dhoonghar, thirty miles north of this city. The Begum Luxmeebhai of that place is in arrear with her taxes—luckily for our little project—and you will therefore drive off all her flocks and herds, and also bear off anything of value in the Begum's house. She is reputed rich, and you should return well laden. This plan will save both her and ourselves trouble in computing the exact amount of her arrears, and it will moreover give His Highness the means of purchasing the rifles which his soul desires.'

Heygate listened horror-struck. To head a band of marauding cattle-lifters and to plunder a helpless woman was as impossible to him as to hang the Begum Luxmeebhai on the nearest tree. In his ignorance of the manners and customs of native States, he had supposed that the only function of the 'troops' was to minister to the sense of ostentatious pride to which the protected rulers cling so closely, and his mistake was a revelation to him. He had forgotten that here in his own dominions the Thakore was paramount, and that the wail of the oppressed could easily be stifled ere it could reach the Supreme Government from the wilds of Kattiawar.

Of course he recognised that there was an end of his project at once. His reply was an indignant refusal. 'Tell the Thakore,' he said, 'that he must get some one else to do his dirty work. I did not come here to act as chief cattle-stealer to His Highness. I shall return to Bombay at once; and I will take care that the Government is notified of the way in which the State of Dihnagar is administered.'

Rajab smiled lazily. 'My young friend,' he said, 'do not be rash. His Highness has taken a fancy to you, and most assuredly you would find departure in your present frame of mind a difficult matter.'

'Pshaw!' said Heygate; 'Gholam Singh knows better than to molest an Englishman. I am quite willing to take all risk on that head.'

'Pardon me, my young friend; you are impetuous,' answered Rajab. 'I did not say that you would be molested. I merely intended to convey the hint that here in Dihnagar those who offend His Highness have a bad time of it. Nothing brutal, you know; the days of the bowstring are past. But a pinch of powdered glass or of something stronger in one's food; a quiet prod from a knife on that lonely road between here and Verawal—why, there are a hundred ways of doing it! You understand me, I see.'

Heygate did understand. The price of refusing the post he had so eagerly sought would in all probability be secret assassination, carried out so skilfully that the cause of his death would never be known. But he wavered not for an instant.

'Go and tell your master,' he repeated, 'that I leave for Bombay to-night. Let him touch me at his peril.'

'I will go; but I will give you an hour to think of it before I report to the Thakore. This is unfortunate, and might have been prevented had the Fakir Indrajai not taken it into his silly old head to die this afternoon. We had hoped to get some hint from him, by force if necessary, as to the whereabouts of the secret treasure. He was the only man in Dilmaghar old enough to remember the sack of the city.—Think better of your resolve, my brave friend!' and with a courtly bow the plausible Rajab departed.

The news of the Fakir's death did not surprise Heygate, and he had other matters to think of. His best plan would be to start at once before the hour's grace was up, and get as far as he could on the road to Verawal before Gholam had heard of his defection. Thank goodness, he had his revolver, and he would sell his life dearly if any hired ruffians attacked him by the way. Putting his hand in his pocket to see if the pistol was safe, his fingers came in contact with the quill which the Fakir had given him earlier in the day. Now that the old man was dead, he remembered that he was at liberty to open it, and, idly curious as to what he should find inside, he broke the seals. A tiny scrap of discoloured paper covered with Guzerati characters rewarded his search. It was lucky for Heygate that his studies with a view to securing a Staff appointment had included a smattering of the language. With amazement gradually dawning into appreciation of the vast importance of the paper, this is what he read:

'I, the Vazir Khanji, in future to be known as Indrajai the Fakir, write this. The hosts of the conquering Feroz are at hand. I have builded up the treasure in the city wall in order to save it from his despoiling hands. The stone in which my shackle is fixed is the key of the hiding-place. Remove the stone, and the wealth of Dilmaghar will be found. While I have life, I guard it from the extortioner. When I die, it shall belong to whomsoever I shall give this paper.'

So the aged Fakir stood revealed as none other than the Vazir Khanji, who nearly seventy years before had sat him down in this mean guise to guard his slaughtered master's wealth from the invader. What a record that brief paper held of fidelity to his self-imposed trust! And to think that he, Basil Heygate, had chanced upon the old man in his need, and had thus become possessed of information which would mean the difference between life and death to him. Well he knew he could never disinter the hidden hoard from the city wall unaided, but at least it would enable him to make terms with the Thakore, which would get him safely out of the country, and at the same time benefit the unhappy inhabitants by relieving their ruler's exchequer.

Heygate's action was prompt. He sent his attendant for Rajab, and astonished that official

with the news that the secret of the treasure was known to him, of course suppressing any allusion to Indrajai. The terms he offered to Gholam were these: in order to insure his own safety against any treachery, he would communicate with the authorities in Bombay as to his whereabouts, asking that Gholam Singh might be held accountable if he did not return in a given time. On receipt of a reply, he would divulge the hiding-place of the treasure on condition of receiving one-tenth part of the value. This arrangement he insisted on having under Gholam's own signature; and he enclosed it with his letter to Bombay—only to be opened in case of his non-return. He had no fear as to the safety of his letter, as the Thakore was in much too great a hurry to finger the spoil to put any obstacle in its way, and as long as Heygate alone knew the secret he was safe.

In ten days an acknowledgment of the letter arrived. Within an hour Heygate conducted the Thakore and his ministers to the spot where the man they had known as Indrajai had sat so long. The ring which had encircled the Fakir's neck had been cut through in order to remove the body, but the stump of the staple still projected from the wall.

'There!' said Heygate. 'Remove that stone, and your quest will be at an end.'

The masons whom they had brought set to work with a will; and as the crowbars clinked and the great stone began to show signs of moving, the young man's excitement was almost painful. What if Indrajai's story was a fiction, after all? Even the fear of the Government would hardly save him from the Thakore's first burst of disappointed rage. But relief came at last; the great stone moved, and toppling forward revealed a sight which struck the bystanders dumb with astonishment. There, in a vast hollow, of which the stone had been merely the doorway, were piled vessels of gold and silver, heaps of precious stones and glittering gems, which had broken loose from the rotting bags that had contained them, an avalanche of gold mohurs that had been apparently shovelled in like chaff, and several chests which spoke of still richer treasures to be explored. Heygate had hardly given a thought to his stipulated tenth share hitherto, expecting at the most a few thousand rupees, welcome but not omnipotent. Now he knew that a tithe of all that shining wealth would save his career, and send him back to the regiment he loved so well with more than enough for his needs.

Three days later, when the hoard had been valued, Heygate was escorted to the city gate with much pomp by the Thakore in person. In his knapsack he had a draft on His Highness's Bombay agents for seven lacs of rupees—the equivalent of fifty thousand pounds. Arrived at the memorable archway, the final parting took place. 'I hope,' said the retiring Sirdar, 'that Your Highness will not now find it necessary to harry the Begum Luxmeebhai or any of your subjects. The Government would be sorry to hear of it.'

To this diplomatic hint Gholam Singh replied suavely enough: 'I am a beneficent ruler, my friend; my people will participate in the wealth

you have brought us. Thanks to you, Dilnagar will be a paradise of content.'

But a subterranean scowl struggled bravely with the smile on His Highness's face; and as Heygate turned his horse's head for the road along which he had tramped footsore and sick at heart three weeks before, he thought with satisfaction of the letter and agreement lying at Bombay. They stood between him and—well, His Highness the Thakore's pleasure.

### BLACK LABOUR IN QUEENSLAND.

THE Bill which has lately been passed by the Legislature in Queensland permitting a renewal of the importation of South Sea Islanders, or Kanakas, for employment on the sugar plantations, has caused a good deal of discussion in England both in the Press and in Parliament. Not unnaturally, the fear has been expressed that a repetition might occur of the abuses which took place prior to the Commission of 1885, in connection with the recruiting of coloured labourers, and that, if the measure passed unchallenged by England, it might be thought her approval was being given to a scheme which has in some quarters been denounced as little better than slavery. The facts of the case, however, show not only that black labour is absolutely necessary in Queensland, unless the sugar industry is allowed to die out, but that the hiring of Kanakas has for years past been conducted under stringent regulations, laid down by the Queensland Government, requiring that ships carrying immigrants shall be licensed, and providing that agents shall be on board to see that 'all islanders have voluntarily engaged themselves, and have entered into their agreements with a full knowledge and understanding of their nature and conditions.' There is evidence, however, that the rules laid down have not in some cases been sufficiently observed. Under the new Act, therefore, they have been made still more severe; and as the Queensland Government seem determined to see them carried out, and to punish any infringement of them, there is no reason to apprehend that the reintroduction of black labour will not be properly conducted. As regards the treatment of the Kanakas when on the plantations, recent testimony, which I can confirm from my own observation in the colony, shows that they are well housed and fed, receive a fair wage, and when their time is up, return to their homes with some money in their pockets, unless, indeed, they have spent it in bright-coloured clothes and handkerchiefs, for which they have a weakness.

The causes which have led to the reintroduction of black labour into Queensland are not far to seek. The tropical heat, although necessary for the growth of the sugar-cane, renders field-labour by the white man so unpleasant, that he will not submit to it, at all events at such wages as the planters can afford to pay. So far, well enough; but the white man in attempting to exclude the necessary Kanaka, and thus adhere to the political cry of 'Australia for the white man'—under which the present Premier, Sir Samuel Griffith, came into power—has almost destroyed one of the most important industries in Queensland. Fortunately, however, the folly

of this policy has now been perceived; the edict against the black man has been withdrawn, and, according to recent accounts from the colony, the sugar-planters, whose estates were going out of cultivation, are again putting forth their energies, and a new era of prosperity may fairly be anticipated.

The exclusion of the Kanaka, so far from being in the interest of white labour, has proved exactly the contrary, for statistics show that the decrease in the numbers of coloured labourers has been followed by a decrease in the same ratio in the employment of white men. According to Mr W. A. Ackers of Townsville, there were seven thousand coloured men employed in 1886 in the Mackay district of Queensland, and eight thousand white people; while in 1888, when the number of coloured men had been reduced to two thousand, the white men employed numbered only four thousand, being a decrease of fifty per cent. in two years. According to the same authority, the wages paid to the Kanakas throughout the colony in 1888 amounted to between fifty and sixty thousand pounds; whereas during the same period the white men employed either directly or indirectly in connection with the sugar industry received as much as one hundred and seventy-four thousand pounds.

The interests involved are of some magnitude. In 1887 the capital invested in this industry was five million pounds, and the value of the machinery for the production of sugar was one million pounds. One quarter of the total area under cultivation in Queensland was under sugar-cane. The value of sugar exported in 1888 was eight hundred thousand pounds; and of the sugar consumed in the colony, two hundred thousand pounds, giving a total of one million pounds. In 1890 the value of sugar exported had diminished by one hundred thousand pounds—the result of the policy above described. As the reintroduction of suitable labour, now resolved upon, means the continuance of an industry of these proportions, the subject is of considerable importance as regards the future prosperity of Queensland.

### MARGUERITE.

SHE lingered 'midst the lilies white and fair,

Marguerite,

Herself the fairest flower that blossomed there,

Pure and sweet.

The music of her voice came unto me

Soft and low;

She sang of happy days that were to be

Long ago.

It was a golden dream of Hope and Love,

Born but to die.

The lilies drooped their heads; the storm-clouds came

Across the sky.

And I have wandered on through weary years,

Life's music fled,

Since my fair Love, my little gentle flower,

Lay dead.

JAMES J. STEVENSON.

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